

NOTES AND DESCRIPTIONS OF AMERICAN POLYCTENIDAE (Hemiptera)

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The present paper is a supplement to the revision of "The Family Polycetenidae" (Ferris, G. F. and Usinger, R. L., 1939, *Microentomology*, 4(1):1-50, 25 figs.). The additional material that has become available since 1939 includes eleven slides kindly sent to G. F. Ferris by A. da Costa Lima from the Instituto de Oswaldo Cruz, one slide loaned to G. F. Ferris by Dr. J. Bequaert from the Venezuelan collections of Pablo J. Anduze, and two slides loaned to R. L. Usinger by Dr. Robert Matheson of Cornell University. One of the Cornell specimens is likewise from Venezuela (Anduze) and the other is the specimen upon which Matheson based his Costa Rican record of *Hesperoctenes tarsalis*.

MORPHOLOGY

The Brazilian material from da Costa Lima includes a last stage nymph of *Hesperoctenes eumops* Ferris and Usinger and two unidentifiable nymphs with perfectly distinct dorsal abdominal scent glands located on the posterior margins of the 4th, 5th and 6th abdominal segments. It is not clear why scent glands are visible in these specimens and not in the other polycetenid nymphs available for study. The polycetenid scent glands resemble the nymphal glands of the bed bug and are another point of similarity between the two families. A search in adult polycetenids for metasternal scent glands similar to those found in the Cimicidae failed to reveal any comparable structures. However, the "second pit of undetermined homologies" located "near each sternal apophyseal pit" (Ferris and Usinger, 1939) is in the proper place and may represent the scent gland opening that is so typical of Cimicoidea and most other Heteroptera.

The ventral surface of the polycetenid head appears to differ from that of other Heteroptera in that the posterior tentorial pits

of the head are adjacent to the inner limits of the genal ctenidia. By definition, then, (Snodgrass, 1935) the median region posterior to these is apparently the gula rather than the hypostomal bridge as in other Heteroptera. Hence the small comb at the posterior margin of the ventral surface of the head should be called the "gular comb."

HESPEROCTENES EUMOPS FERRIS AND USINGER

Seven slides of this species are at hand including one teneral adult male in poor condition, one perfect adult female and five nymphs. These are the specimens referred to by Ferris and Usinger (p. 22) as "Hesperoctenes species." They are labelled "? *Hesperoctenes longiceps* Waterhouse, *Molossus perotis*, Campos, VI-1920, A. C. Pestana Coll." and were prepared and determined by da Costa Lima. The well-preserved female differs from typical *eumops* only in having slightly fewer (12) stout bristles on the metapleurites. In the shape of the head, general chaetotaxy, body proportions, and size this female falls well within the range of variation exhibited by the typical California series of *eumops*. The male has the apex of the intromittent organ distinctly sinuate but this is probably due to the fact that the specimen is in a bad state of preservation.

HESPEROCTENES FUMARIUS (WESTWOOD)

A single male specimen from Turrialba, Costa Rica, 2500 feet, August 7, 1927, W. V. Hamilton, has been received from Dr. Matheson. It bears a label "*Hesperoctenes tarsalis* Horv." (Matheson, 1928, Parasitology 20:174) and may, indeed, be that species although, if so, it can scarcely be maintained as distinct from typical West Indian *fumarius*. The specimen agrees perfectly with Cuban specimens of *fumarius* except for the naked middle and anterior portions of the metasternum. However, the metasternum shows some evidence of bristles having been broken off. The fourth antennal segment is slightly longer than the second or third but is attenuated apically, possibly due to shriveling. The specimen is 2.4 mm. in length.

Dr. S. C. Bruner has five specimens of typical *fumarius* from *Molossus tropidorhynchus* Gray collected from the buildings of the Estación Experimental Agronomica at Santiago de las Vegas by L. C. Scaramuzza.

Hesperoctenes limai Ferris and Usinger, new species

Head longer than broad, 24::22; labrum less than half as long at middle as total width, 5::12½, rather evenly rounded anteriorly. Chaetotaxy of dorsal surface as in *longiceps*. Genal ctenidia rather evenly rounded in general outline, the teeth rather strongly projecting postero-laterally at sides. Gular bristles wanting. Proportion of antennal segments one to four as ⅔:1½:1⅓:1⅓; the first segment with nine short, stout spurs along anterior and basal margins and with longer bristles distally.

Pronotum half again as broad as long and about one-fourth broader than head. Mesonotal pads as long as pronotum, each pad about one-fifth narrower than length of pronotum or mesonotal pad. Elevated area of prosternum a little longer than broad at base, the anterior margin with seven very stout bristles laterally. Elsewhere on anterior half with longer, more slender bristles and with shorter bristles posteriorly on the disk, especially laterally (a few of the central ones apparently broken off). Metasternum with numerous very fine bristles near posterior and lateral margins. Metapleurites with eight or nine irregularly directed, stout bristles arranged in two or three ill-defined rows.

Size: male 3.44 mm., female 3.86 mm.

Holotype, female, LASSANCE, BRAZIL, April 13, 1935, Emmanuel Dias, collector, C. L. prep. *Allotype*, male, SITIN DU MATTO, BAHIA, BRAZIL, April 13, 1935, Emmanuel Dias, collector, C. L. prep.

Nearest to *longiceps* with which it agrees in absence of gular bristles, in its exceedingly long labrum, its relatively long, narrow head and dense bristles posteriorly on metasternum. It differs from *longiceps* in its smaller size, its more numerous and differently arranged metapleural bristles and the narrower head anteriorly with larger labrum.

Hesperoctenes parvulus Ferris and Usinger, new species

Head (including labrum) as long as broad; labrum less than three times as broad as length on median line, 8::3 (almost 4 times as broad as long in *cartus*, 21½::5½, and over four times as broad, 19½::4, in *vicinus*). Genal ctenidia as seen from above rather strongly rounded immediately behind first antennal segment, following lateral margins of head posteriorly and laterally, the teeth scarcely exceeding sides of head. Gular bristles seven or eight in number, with two of these near the center set slightly forward. Proportion of antennal segments one to four as 2½:4:3½:3½, with seven stout spurs on outer anterior side of first segment beneath.

Pronotum slightly more than half again as broad as long, 3:2¼, much as in *cartus*. Mesonotal lobes scarcely shorter than pronotum, a single lobe being one-fifth longer than broad. Elevated portion of prosternum about as long as broad, the disk with five very stout bristles laterally on anterior margin and twenty-six more slender bristles arranged roughly into three rows anteriorly. Behind these the disk is almost entirely naked except for about one dozen small bristles laterally on apical half. Metasternal bristles confined to the areas immediately adjacent to posterior and lateral margins. Metapleurites with only six or eight very stout bristles irregularly arranged into two rows.

Chaetotaxy of upper surface of entire body much as in *cartus*. Size: female 2.28 mm.

Holotype, female, STA. MARIA DE EPIRE, GUARICO, VENEZUELA, September, 1937, Pablo J. Anduze, received from Dr. J. Bequaert. The specimen was taken from *Glossophaga longirostris* Miller, a bat belonging to the family Phyllostomidae. A second female from the same locality on "Vampire bat," 1936, appears to be slightly teneral. It differs in its slightly larger size, 2.4 mm., and in possessing only 5 gular bristles arranged in an irregular row.

Closest to *cartus* and clearly a member of the compact *cartus-vicinus* group, having bristles at middle of hind margin of head beneath and very sparsely placed bristles over the entire dorsal surface. The head is as long as broad and the gular bristles are 8 in number arranged in an irregular, almost double row, thus resembling *cartus*. *Vicinus* has a shorter, broader head and fewer bristles arranged in a single row. The elevated portion of prosternum is naked at middle with only a few bristles posteriorly and laterally, thus still more closely resembling *cartus* with which it likewise agrees in chaetotaxy of metapleurites. The most distinctive feature of *parvulus* is the relatively longer and narrower labrum. In addition, *parvulus* is about two-thirds of a millimeter smaller than *cartus*, the female holotype being the smallest *Hesperoctenes* as yet described.

THE CHAMBERLIN COLLECTION OF BUPRESTIDAE

The California Academy of Sciences has acquired the Collection of Buprestidae of Dr. W. J. Chamberlin, of Corvallis, Oregon.—EDWIN C. VAN DYKE.